0908 32513 CORE BOXES FERNDENE BD 10-12

(1) Quad 29

DEPARTMENT OF MINES—TASMANIA

DIAMOND DRILL CORE RECORD

Hole No. 1

Drilled by ALAN DEATH

Core Recovery

Geological Logging by—
K.L. BURNS

Area of Operation FERNDENE, PENGUIN

Location of Site 100 NE of S. end of small iron cliff

Date Commenced —

Date Completed January 1960

DETAILED LOG (See also generalised log)

NOTE: Plotted scales vary from 6"=1" to 12"=1" to 3'=1"

Reduced Level of Site ~ 310' a.s.l.

Bearing of Hole 330 mag 34 299

Dip of Hole 74°

Bore Depth 251'11"

Plan N° 1824

Pg N° 2007

General AMG co-ords: 41 8882 E 5444174 N.

Core held M 138.

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	
	0'	7'10"	7½" (8 pcs)		4"	Limonite						
					1"	Qzite &						
					2½"	Limonite	All broken (pebbles?)					
	7'10"	13'0"	8" (12 pcs)		3½"	Limonite						
					1½"	Qzite						
					2"	Limonite						
					1"	Brown mudstone						
	13'0"	14'2"	3" (2 pcs)		3"	Qzite (Pebbles?)						
	14'2"	16'4"	5½" (25 pcs)		1"	Pebbles (?) mudstone, qzite, limonite						
					4½"	Brown mudstone with haematite replacement at 30°						
	16'4"	26'7"	3½" (2½ pcs)		1½"	Sandstone, argillaceous, with limonite veins						
					2"	Soft yellow clay (weathered mudstone)						
	26'7"	36'4"	7½" (6 pcs)		2"	Cellular iron ore						
					5½"	Soft white clay (not same as weathered mudstone above)						
	36'4"	40'	3½" (8 pcs)		½"	iron ore						
					3"	Soft yellow clay (weathered mudstone)						
	40'	46'6"	2" (2 pcs)		1"	Qzite						
					1"	limonite						

IRON ORE
BARYTA + SIDERITE etc
QUARTZ
MANGANESE
FAULT GOUGE
SANDSTONE
MUDSTONE
SAMPLES

0909

(2) 029

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			34 300
Date	From	To	Core Recov.	From	~~To~~	Description	Core	Sample	Sample No.	From	To	
	46'6"	48'0"	3½ (20%)		2"	Qzite						
					1½"	Limonite	2"					
	48'0"	51'0"	2" (5%)		2"	Qzite						
	51'0"	60'7"	2½ (2%)		¾"	Argillaceous Sandstone						
					½"	Limonite						
					1¼"	Argillaceous Sandstone						
	60'7"	62'6"	11" (50%)		11"	Limonite with inclusions						
	62'6"	66'4"	17½ (35%)		17½"	Limonite with inclusions.						
						Layering at 60°						
	66'4"	72'3"	4¾ (~~7%~~ 8%)		¾	Haematite						
					4	Limonite						
	72'3"	75'0"	2" (6%)		2"	Limonite						
	75'0"	80'0"	4" (6%)		4"	Cellular limonite						
	80'0"	83'0"	2" (5%)		2"	Limonite						
	83'0"	90'0"	5" (6%)		5"	Limonite						

0910

DD 1 IRON CLIFFS (3) @ 29

34 301

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION	
Date	From	To	Core Recov.	From	~~To~~	Description	Core	Sample
	90'0"	95'0"	10"(16%)		10"	Limonite		
	95'0"	100'0"	6½ (10%)		6½	Limonite		
	100'0"	110'0"	19½ (10%)		2½	Limonite		
				DRILLER: After several cementings finally reached depth of 107 feet. Boring 30 feet to get bottom.				
					—	Cement		
					17"	Limonite		
	~~110~~ 0"	115'0"	8½ (13%)		1½	Limonite		
					2	Limonite and baryta		903
					5	Barytes		903
	115'0"	120'0"	6 (10%)		2	Limonite & baryta		903
					1	Barytes		
					1½	Limonite + baryta		
					1½	Limonite		
	83'0"(?)	120'0"		DRILLER After reaching stage where bits are being badly worn, bored to bottom and cemented through rods. New hole run off.				
					—	Cement		
				DRILLER Still unable to proceed past 120'. Hole falling in as bad as ever. Cemented and bored out to 83'.				
					—	Cement Then 5" limonite, cement, 12" limonite, 7" limonite + siltstone, 2" pieces of mudstone and barites, 5" limonite & barites, 2" limonite		
	120'0"	125'0"	2½ (4%)		2½	Limonite		904
	125'0"	130'0"	4½ (7½%)		4½	Limonite		904
	130'0"	131'6"	10½ (36%)		8	Barite with some limonite inclusions		905
					2½	Barite		905
	131'6"	136'5"	4½ (7%)		2½	Pure white barites		905
					2	Mudstone		

ASSAY RESULTS								
Sample No.	From	To	SiO_2	Fe	$BaSO_4$	Cu	Au	
903	110'0"	120'0"	24·0	12·8	55.1	NIL	Tr	
904	120'0"	130'0"	22·4	45·4	2·3	NIL	Tr	
905	130'0"	136'6"	6·8	1·8	90·9	NIL	NIL	

0911 CORE BOXES: FERNDENE BD 10-12

(4) 029

DEPARTMENT OF MINES—TASMANIA

DIAMOND DRILL CORE RECORD

DETAILED LOG

34 302

Hole No. 1 Cont.

Drilled by Alan Death

Core Recovery

Geological Logging by— K. L. Burns

Area of Operation IRON CLIFFS, PENGUIN

Location of Site 100 NNE of south end of small iron cliff

Date Commenced

Date Completed February 1960

Reduced Level of Site approx. 310' above sea level

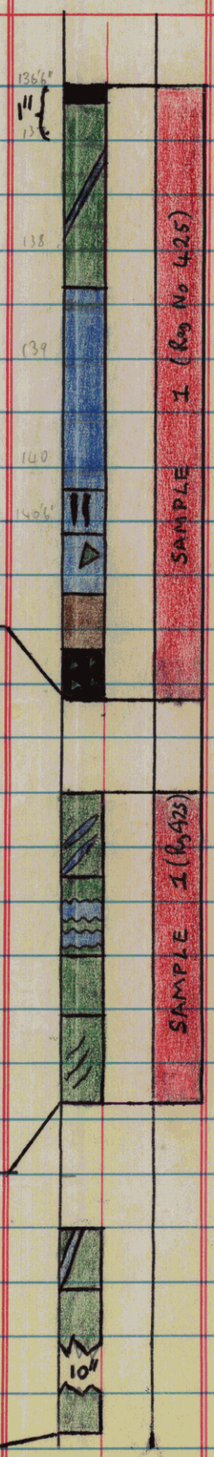
Bearing of Hole 330° magnetic

Dip of Hole 74°

Bore Depth ~~210'0"~~ 251'11"

DRILL RECORD				GEOLOGICAL LOG		
Date	From	To	Core Recov.	From	~~To~~	Description
	136'6"	140'6"	8¼" (16%)		¼"	~~¼"~~ solid limonite
					3 3/8"	~~soft~~ soft green glossy mudstone, with ⅛" seam of baryta at 30° to ~~axis~~ of bore
					3¾"	solid barytes
					⅛"	barytes with thin (1/16") vertical seams of limonite
					1 ⅛"	barytes containing one (¼" diam) angular inclusion of mudstone
					1"	green sandstone
					⅛"	sharpstone conglomerate — fragments of angular brown phyllite av ⅛" in a 50% matrix ~~of~~ of limonite
	140'6"	145'0"	5¾" (10%)		1½"	green & yellow phyllite with ¼" barytes seams at 40° & 50°. Barytes in wide part of seams, limonite in narrow parts. Also thin, irregular, limonite seams.
					1½"	green phyllitic mudstone with two barytes seams ½" wide. Irregular barytes–mudstone contact, with thin layer of limonite at boundary.
					1⅛"	green phyllite with foliation at 56°
					1⅝"	brown phyllite with thin limonite seams and strong cleavage at 40°
	145'0"	150'0"	11⅞" (20%)		1⅛"	Green mudstone with ¼" barytes seam at 20°, cleavage at 0°.
					10¾"	Green mudstone and argillaceous sandstone, with cleavage at 0° (// axis of bore)

GEOLOGICAL SECTION



ASSAY RESULTS %

Sample No.	From	To	SiO_2	Fe	Mn	Cu	Ba	P %	Au g/t
1 (Reg No) 425	136'6"	145'0"	38.20	6.3	0.01	Trace	34.3	0.02	Nil

Fe/Mn = 6300

Fe/P = 3150

Mn/P = 0.5

0912 32513

DEPARTMENT OF MINES—TASMANIA

DIAMOND DRILL CORE RECORD

DETAILED LOG

CONTINUATION SHEET 5 Q29

34 303

Hole No. 1

Drilled by ALAN DEATH

Core Recovery

Geological Logging by—

K.L. BURNS

Area of Operation IRON CLIFFS, PENGUIN

Location of Site 100' NE of south end of small iron cliff

Date Commenced

Date Completed

Reduced Level of Site ~ 310'

Bearing of Hole 330 mag

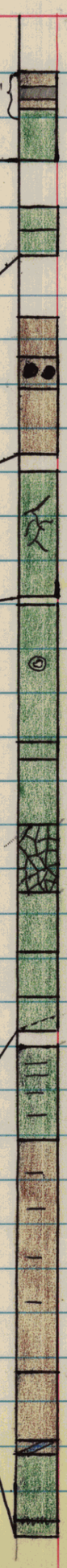
Dip of Hole 74°

Bore Depth ~~210'0"~~ 251'11"

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	
	150'0"	155'0"	15 3/8" (25%)		4 1/2"	Green mudstone, cleavage at 10°						
					3/4"	Sandstone	2"					
					2 1/4"	Sandstone vugs of quartz, baryta						
					2 1/8"	Sandstone vein quartz at ends						
					1 7/8"	Sandstone 1/8" qtz vein at 40°, cleavage at 20°						
					3 7/8"	Sandstone and argillaceous sandstone						
	155'0"	160'0"	13 1/8" (22%)		4 3/4"	Sandstone						
					3 3/4"	Sandstone. Slickensided surface at 60°.						
					2 1/4"	Sandstone.						
					1 3/8"	Green mudstone						
					7/8"	Sandstone with qz veins at ends at 90°						
					3 1/8"	Sandstone with irregular veins of white quartz						
	160'0"	162'3"	6 3/4" (22%)		1 5/8"	Sandstone with Thin quartz seams in intersecting joints						
					3 1/4"	Qz sandstone with irregular secretion quartz						
					5/8	Sandstone						
					1 1/4	Sandstone with qz veins						

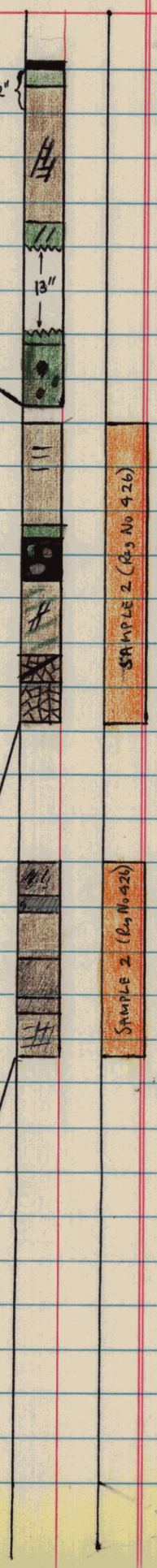
0913 DD 1 IRON CLIFFS 34 304 6 029

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	
	162'3"	165'0"	4"(12f)		1 5/8"	Sandstone with 5/8" vein quartz						
					2 3/8	Mudstone — finility at 75° (To bore axis)						
	165'0"	165'8"	2 1/4" (25f)		1"	Finile brown mudstone						
					1 1/4"	Grey mudstone - cleavage at 20°						
	165'8"	168'3"	6'8" (20f)		1 7/8"	Coarse sandstone						
					1 1/4"	Coarse sandstone with rings of micaceous haematite						
					3"	Coarse sandstone						
	168'3"	169'4"	5 3/4" (40f)		5 3/4"	Mudstone. Finility at 75°.						
						Seams and diffuse stains of iron ore.						
	169'4"	174'2"	16 1/4" (96f) 26f		6 1/4	Mudstone. Finility at 55°.						
						Liesegang Rings in limonite around small vug.						
					3/4	Mudstone						
					2 1/2	Mudstone with joints at 30°						
					1 1/2	Brown phyllitic mudstone. Brecciated into sharpstones averaging Y8", cemented with haematite						
					2 3/4	Mudstone. Joints at 0°						
					1 1/8	Mudstone						
					1 3/8	Chocolate phyllite. Boundary with white siltstone is at 70° (probably bedding)						
	174'2"	179'2"	21 3/8 (37f)		4 Y8	Brown micaceous mudstone. Limonite seams at 0°						
					10 1/2	Fine white siltstone with thin limonite seams at 0°. A surface at 27° has slickensides pitching at 25°.						
					3 1/8	White siltstone						
					5/8	White siltstone with a thin barytes seam						
					3	Brown micaceous mudstone						



0914 DD1 IRON CLIFFS 34 305 7 Q29

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS										
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	SiO_2	Fe	Mn	Cu	Ba	P	Al
	179'2"	184'8"	24 3/8" (40%)		Y2	Limonite													
					7/8	Brown phyllitic mudstone. Faint crinkle lineation at intersection of foliation and cleavage.													
					6	Fine brown sandstone with thin limonite seams at 15° and 45°, forming a ladder pattern.													
					14 1/2	Mudstone with limonite seams at 15°, finality at 80°.													
					2 1/2	Brown phyllite with irregular limonite replacement													
	184'8"	187'7"	13 4/8" (30%)		4 5/8	Brown sandstone with limonite seams at 0° Faint laminations at 70°													
					Y2	Brown mudstone													
					1 1/2	Limonite with inclusions of mudstone, sstone, quz. Layer of haematite at contact with mudstone.			2 (Res No 426)	184'8"	192'2"	63·6	14·1	0·01	Trace	Nil	0·04	Nil
					3 1/2	Laminated sandstone, with bands of mudstone at 40°. Limonite veins at 10° offset by veins at 25°						Fe/Mn = 1410							
					1 1/4	Brecciated sandstone in limonite cement. Main limonite seam at 40°						Fe/P = 352 1/2							
					1 3/4	Brecciated sandstone (av Y8") in limonite cement						Mn/P = 0·25							
	187'7"	189'6"	6 7/8 (25%)		1 1/2	Sandstone, strongly jointed, soaked in limonite													
					3/4	Quartz conglomerate, cemented with limonite													
					1	Sandstone, joints at 65°													
					1 7/8	Sandstone, jointed, limonite cement													
					3/4	Sandstone with limonite cement													
					2	Sandstone with limonite seams at 15° and 80°													



0915

D 1 IRON CLIFFS 34 3068 029

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION	
Date	From	To	Core Recov.	From	~~To~~	Description	Core	Sample
	189'6"	194'4"	30 1/8" (60%)		1	Limonite with Trace of barytes		
					4½	Sandstone with limonite seam at 60°. Contains patch of pug with disseminated pyrite.	2"	
					3	Green sandstone with joint at 45° (Specimen 1)		SAMPLE 2 (Rpt No 426)
					3	Coarse sandstone with limonite in seams		
					1	Coarse green sandstone		
					2	Mudstone with limonite seams at 15°		
					4 1/8	Mudstone with limonite seams, and fine, ramifying black veins (manganese?)		
					3½	Fault runs length of piece of core, at 5°. On one side is brown mudstone with limonite veins, on other side is green fault gouge with disseminated pyrite. Fault post-ore, as limonite veins finish on fault.		SAMPLE 3 (Rpt No 427)
					10	Green fault gouge. Pebbles of mudstone & qzite as ¼" but range up to 3/8"		
	194'4"	200'2"	3 1/4 (5%)		1 1/4	Green fault gouge		
					1½	Brown mudstone, saturated with limonite		
					½	White fault gouge		
	200'2"	202'0"	6 5/8 (30%)		3 5/8	Brown mudstone, soaked in limonite		
					3	Green mudstone, with fine white laminae at 85°		
	202'0"	203'6"	17" (95%)		17	Fine green mudstone with thin laminae at 60°, and numerous barytA (or siderite?) veins		

ASSAY RESULTS												
Sample No.	From	To	SiO_2	Fe	Mn	Cu	Ba	P	Pb	Au	Ag
2 (Rpt No 426)	184'8"	192'2"	63·6	14·1	0·01	Trace	NIL	0·04	ND	NIL	ND
3 (Rpt No 427)	192'2"	196'11"	ND	ND	ND	NIL	ND	ND	Trace	NIL	Trace

Specimen (190'): Petrologist 12/4/60

Hand: Fine grained, pale grey, siliceous rock stained with haematite and limonite

Slide: Matrix of sericite and quartz containing large angular grains of quartz about 0·1mm across, and masses of quartz mosaic of much coarser granularity about 1mm. (latter appear as recrystallised stretched pebbles). Granules of opaque white clay material are disseminated throughout. Patches of haematite largely altered to limonite.

Determination: Indurated quartzose mudstone.

DD 1 IRON CLIFFS 34 307 9 Dg

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION	
Date	From	To	Core Recov.	From	~~To~~	Description	Core	Sample
	203'6"	205'	15" (80%)		1 3/4	Mudstone		
					13 1/4	Green mudstone, with laminae at 90°, and numerous streaks of barytes (or siderite?)	2"	
							10"	
	205'0"	214'6"	9'3" (95%)		9'3"	Fine green mudstone with numerous barytes (or siderite?) veins which contain a few crystals of pyrite A 2" band of coarser rock at 7'3". (Fine mudstone) Specimen 2	12"	SAMPLE 4 Reg No 428
	214'6"	219'0"	3'10" (95%)		3'10"	Fine green mudstone with barytes (or siderite?) veins controlled by joints at 0°, and conjugate pairs at ~50°.		
	219'0"	225'9"	8½" (11%)		5"	Green sandstone	2"	
					3½"	Mudstone, iron stained, with black bands		
	225'9"	234'9"	19½" (20%)		5"	Green sandstone		5
					8"	Sandstone, soaked in iron		
					6½"	Sandstone		SAMPLE 5 (REG NO 429)
							2½"	

ASSAY RESULTS							
Sample No.	From	To	Cu	Ba	Au	Ag	
4 (Reg No 428)	209'10"	212'6"	NIL	NIL	NIL	Trace	

Specimen (210') Petrologist 12/4/60

Hand: Fine grained, moderately soft, pale grey rock with carbonate veins.

Slide: Fine grained mosaic of irregular quartz grains interlaced with sericite laths. Small aggregates of carbonate plentiful. Much disseminated, white opaque clay and black opaque iron ore.

Determination: Quartzose mudstone.

Sample	From	To	SiO_2	Fe	Mn	Cu	Ba	Au
5 Reg No 429	222'	232'	56·9	9·4	0·01	0·03	NIL	NIL

DD1 IRON CLIFFS 34 308 10 029

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS			
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To	
	234'9"	240'	15" (25%)		14"	Green sandstone						
					1"	Green mudstone	4"					
	240'	244'	12" (25%)		12"	Mudstone, iron soaked, with blank veins						
	244'	246'8"	23½" (65%)		3½"	Sandstone, iron stained						
					20"	Green sandstone						
	246'8"	251'11"	13" (20%)		10"	Sandstone						
					3"	Sandstone, iron stained						
				END OF BORE								

DD 1 IRON CLIFFS CONDENSED LOG 5'≡1" (su also detailed log) 029

34 309

74-330 Mag

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION		ASSAY RESULTS		
Date	From	To	Core Recov.	From	To	Description	Core	Sample	Sample No.	From	To
	0'0"	7'10"	7½ (88%)			4" limonite 1" Qzite 2½" limonite					
	7'10"	13'0"	8" (12%)			3½ Limonite 1½ Qzite 2 Limonite 1 Brown mudstone		rubble			
	13'0"	14'2"	3" (21%)			3" Qzite					
	14'2"	16'4"	5½ (25%)			1" qzite, mudstone, limonite 4½ brown mud with hematite at 30° (replacement)					
	16'4"	26'7"	3½ (2½%)			1½ Argillaceous stone, limonite veins 2 Weathered mudstone					
	26'7"	36'4"	7½" (68%)			2" Cellular iron ore 5½" soft white clay					
	36'4"	60'	3½" (80%)			½" iron ore 3" weathered mudstone					
	60'	46'6"	2" (2%)			1" Qzite 1" limonite					
	46'6"	48'0"	3½" (20%)			2" Qzite 1½" Limonite					
	48'6"	51'0"	2" (5%)			2" Qzite					
	51'0"	60'7"	2½" (2%)			¾ Argillaceous sandstone ½ Limonite 1¼ Argillaceous sandstone					

Makes 11° with 90/195, apparent plunge 78E in 90/195.

MUDSTONE
SANDSTONE & QUARTZITE
FAULT GOUGE
IRON ORE
BARITES & SIDERITE
QUARTZ
MANGANESE

SAMPLES

DD 1 IRON CLIFFS CONDENSED LOG 12 029

DRILL RECORD				GEOLOGICAL LOG			GEOLOGICAL SECTION	
Date	From	To	Core Recov.	From	To	Description	Core	Sample
	51'0"	60'7"	2½ (2ft)			3/4 Sandstone 37½ ½ Limonite 25 1¼ Sandstone 62½ Sandstones argillaceous		
	60'7"	62'6"	11" (5oft)			11" Limonite with inclusions		
	62'6"	66'4"	17½ (35ft)			17½ Limonite with inclusions. Layering at 60°		
	66'4"	72'3"	4¾ (7ft)			¾ Haematite 4 Limonite		
	72'3"	75'0"	2" (6ft)			2 Limonite		
	75'0"	80'0"	4" (6ft)			4" cellular limonite		
	80'0"	83'0"	2" (5ft)			2" limonite		
	83'0"	90'0"	5" (6ft)			5" limonite		
	90'0"	95'0"	10" (16ft)			10" limonite		
	95'0"	100'0"	6½ (10ft)			6½ limonite		
	100'0"	110'0"	19½ (10ft)			2½ Limonite 17 "		

55 60 65 70 75 80 85 90 95 100 105 110

SAMPLE 903

ASSAY RESULTS 34 310		
Sample No.	From	To

DDI IRON CLIFFS CONDENSED LOG 13 Dg

DRILL RECORD				GEOLOGICAL LOG		
Date	From	To	Core Recov.	From	To	Description
	110	115	8½ (13f)		1½	Limonite
					2	Limonite + barytа
					5	Barytа
	115	120	6 (10f)			2 Limonite & barytа
						1 Barites
						1½ Limonite + barites
						1½ Limonite
	120'	125'	2½ (4f)			2½ Limonite
	125	130	4½ (7½f)			4½ Limonite
	130'0"	131'6"	10½ (36f)			10½ Barito, some limonite inclusions
	131'6"	136'5"	9½ (7f)			2½ Barites
						2 Mudstone
						¼" limonite
	136'6"	140'6"	8¼" (16f)			3 3/8" mudstone with barytа seam
						5 ¾" barytes with angular mudstone inclusions and limonite seams
						1" sandstone
				Graded mud pellet bed?		⅞" sharpstone phyllite (4f4) conglo in limonite (50% b) matrix
	140'6"	145'0"	5¾" (10f)			5¾" green, yellow & brown phyllite with barytes seams, sometimes lined with limonite, and thin limonite seams
						Foliation at 56°, cleavage at 40°.
	145'0"	150'0"	11 7/8 (20f)			11 7/8" Green mudstone & argillaceous siltstone with barytes seam.
						Cleavage at 0°
	150'0"	155'0"	15 3/8" (25f)			4½" Green mudstone, cleavage at 10°
						10 7/8" Sandstone & argillaceous siltstone with rings & veins of barytes, quartz
						Cleavage at 20°
	155'0"	160'0"	13⅛" (22f)			7 ¾" Sandstone. Slickensided surface at 60°
						1 3/8 Mudstone
						4" Sandstone with quartz veins
	160'0"	162'3"	6¾" (22f)			6¾ Sandstone with quartz veins
	162'3"	165'0"	4" (12f)			1 5/8 Sandstone with qz veins
						2 3/8 Mudstone. Fissility at 75°.

GEOLOGICAL SECTION

Core Sample

REST. LOG

PULLS

110' 115' 120' 125' 130' 135' 140' 145' 150' 155' 160' 165'

SAMPLE 903 SAMPLE 904 SAMPLE 905 SAMPLE 1 Reg No 425

ASSAY RESULTS 34 311

Sample No.	From	To	SiO_2	Fe	$BaSO_4$	Cu	Au
903	110'0"	120'0"	24.0	12.8	55.1	NIL	Tr
904	120'0"	130'0"	22.4	45.4	2.3	NIL	Tr
905	130'0"	136'6"	6.8	1.8	90.9	NIL	NIL

NO	REG NO	FROM	TO	SiO_2	Fe	Mn	Cu	Ba	P	Pb	AU	Ag	C
1	425	136'6"	145'0"	38.20	6.3	0.01	Tr	34.3	0.02	—	NIL	—	—

DD1 IRON CLIFFS CONDENSED LOG

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34 312

DRILL RECORD / GEOLOGICAL LOG

Date	From	To	Core Recov.	From	To	Description
	165'0"	165'8"	2¼ (25%)			2¼" Fissile Mudstone cleavage at 20°
	165'8"	168'3"	[crossed out] 6⅛ (20%)	[crossed out]	[crossed out]	[crossed out] 6⅛ Coarse Sandstone with vugs of micaceous haematite
	168'3"	169'4"	5¾ (40%)			5¾" Mudstone with seams & diffuse patches of iron. Fissility 75°
	169'4"	174'2"	16¼ (26%)			16¼" Mudstone. Vugs with rings of iron ore. One 1½" band is brecciated (pieces av. ⅛") cemented with haematite. Fissility at 55°. Boundary with white silt (bedding) is 70°.
	174'2"	179'2"	21⅜ (37%)			4⅛ Mudstone with limonite seams. 14¼ Fine white siltstone. Fault at 27° with ℓ pitch 25°. Thin Fe seams 3 Brown micaceous mudstone.
	179'2"	184'8"	24⅜ (40%)			½" Limonite ⅛ Brown phyllitic mudstone. Foliation x cleavage → crinkle ℓ. 6 Fine brown sandstone with ladder seams of limonite. 17 Mudstone, limonite seams & replacement patches. Fissility 80°
	184'8"	187'7"	13⅛ (30%)	?layer graded mud pellets		4⅝ Sandstone with limonite seams. Laminations at 70°. ½ Brown mudstone 1½ Limonite with mudstone, sstone, qz inclusions. 6½ Sandstone with limonite veins & brecciated zones. Laminae at 40°.
	187'7"	189'6"	6⅞ (25%)			1½ Sandstone, soaked in limonite ¾ Quz congte, " " 4⅝ Sandstone Limonite seams & cement
	189'6"	194'4"	30⅛ (60%)			1 Limonite with trace of barytes 11½ Sandstone with limonite seams, and one patch of png with disseminated pyrite. Specimen 1 (190') 6⅛ Mudstone with limonite seams and manganese veins 13½ Fault gouge (mud & sstone pebbles av ⅛, up to ⅜") with disseminated pyrite. Limonite veins terminate on fault. Fault at 5°.
	194'4"	200'2"	3¼ (5%)			1¾ Fault Gouge 1½ Brown mudstone, limonite stained.
	200'2"	202'0"	6⅝ (30%)			6⅝ Mudstone, soaked in limonite, with laminae at 85°.
	202'0"	203'6"	17" (95%)			17 Mudstone, siderite veins. Laminae at 60°
	203'6"	205'	15" (80%)			15" Mudstone, siderite veins. Laminae at 90°.
	205'0"	214'6"	9'3" (95%)			9'3" Mudstone with siderite veins containing a few crystals of pyrite. 2" coarse band at 7'3". Specimen 2 (210')
	214'6"	219'0"	3'10" (95%)			3'10" Mudstone with siderite veins
	219'0"	225'9"	8½" (11%)			[crossed out] 5" Green sandstone 3½" Mudstone, ironstained, with black bands

ASSAY RESULTS

No	Reg No	From	To	SiO_2	Fe	Mn	Cu	Ba	P	Pb	Au	Ag	C
2	426	184'8"	192'2"	63.6	14.1	0.01	Tr	NIL	0.04	—	NIL	—	—
3	427	192'2"	196'11"	—	—	—	NIL	—	—	Tr	NIL	Tr	—
4	428	209'10"	212'6"	—	—	—	NIL	NIL	—	—	NIL	Tr	—

DD1 IRON CLIFFS CONDENSED LOG

15 029

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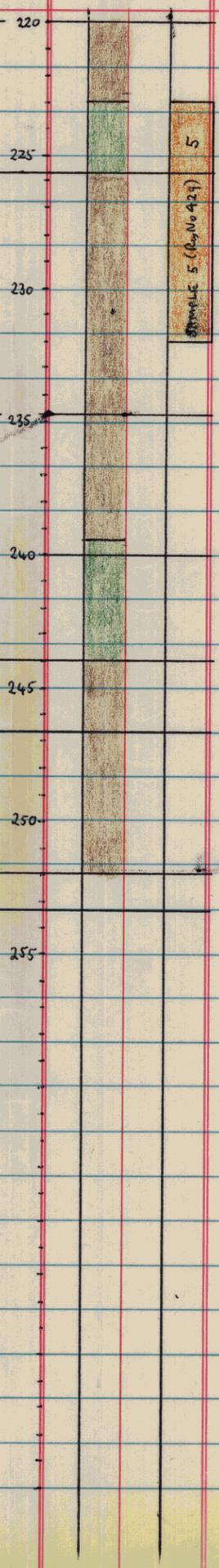
DRILL RECORD				GEOLOGICAL LOG		
Date	From	To	Core Recov.	From	To	Description
	219' 0"	225'9"	8½" (11ft)			5" Green sandstone
						3½" Mudstone, iron stained, with black bands
	225'9"	234'9"	19½" (20ft)			19½" Sandstone, part soaked in iron ore
	234'9"	240'	15" (25ft)			14" Green sandstone
						1" Green mudstone
	240'	244'	12" (25ft)			12" Mudstone, iron soaked, with black veins
	244'	246'8"	23½" (65ft)			23½" Sandstone, part iron stained
	246'8"	251'11"	13" (20ft)			13" Sandstone, part iron stained
						END OF BORE

GEOLOGICAL SECTION



ASSAY RESULTS

Sample No.	NO	REG NO	From	To	SiO_2	Fe	Mn	Cu	Ba	Au
	5	429	222'	232'	86.9	9.4	0.01	0.03	NIL	NIL